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IS 4438 (1967): Perforated Steel Strips (Filletts) for
Take-up Rollers [TXD 14: Machinery for Fabric Manufacture]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 4438 - 1967

REAFFIRMED

Indian Standard
SPECIFICATION FOR
PERFORATED STRIPS FOR TAKE-UP ROLLERS

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SPECIFICATION FOR PERFORATED STRIPS FOR TAKE-UP ROLLERS

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TDC 29

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Indian Standard

SPECIFICATION FOR PERFORATED STRIPS FOR TAKE-UP ROLLERS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 27 December 1967, after the draft finalized by the Cotton Weaving Machinery Components Sectional Committee had been approved by the Textile Division Council.

0.2 This standard is based on the manufacturing practices followed in the country in this field.

0.3 This standard contains clauses 3.3 and 6.3 which call for agreement between the buyer and the seller for permitting the buyer to use his option for selection to suit his requirements.

0.4 For assessing the roughness of fillet (*see* 2.3), the Bombay Textile Research Association, Bombay have taken up the work of evolving a suitable method. When the work is completed, the details of the method would be incorporated in this standard.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes requirements of perforated steel strips (fillets) used for covering take-up rollers of plain looms.

2. MANUFACTURE

2.1 Material — Fillets shall be made from cold-rolled bright mild steel strips. The carbon content of the steel strip shall be 0.08 percent (*Max*).

2.2 Workmanship and Manufacture — The strip should be punched to form holes all over the surface (*see* Fig. 1) in such a way that the edges of

* Rules for rounding off numerical values (*revised*).

the holes protrude out of the surface of the strip making it rough. No hole shall cut the edge of strip on either side.

NOTE — If prescribed by the buyer, brass sheet may be used for the manufacture of fillets.

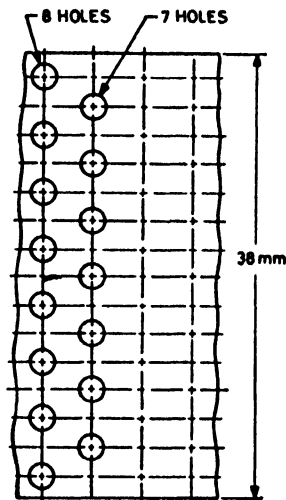


FIG. 1 STAGGERING OF 7/8 HOLES IN A FILLET

2.3 Roughness of Fillet — The surface of the fillet should be rough to such an extent that it does not allow the woven cloth to slip over it (that is, it grips the cloth) and at the same time does not damage the cloth in any way.

2.4 Finish — The fillet shall be given an anti-rust finish.

3. REQUIREMENTS

3.1 Width — The width of the fillet shall be 38 mm.

3.2 Thickness — The thickness of the strip shall be 0.150 to 0.213 mm (or 38 to 35 SWG).

3.3 Pattern — As agreed to between the buyer and the seller, the pattern of the fillet (staggering of holes) shall be 7/8, 9/10, 11/12, 16/17, 19/20 or 21/22. The staggering of holes in the fillet shall be as shown in Fig. 1.

NOTE 1 — 7/8 holes means that there are 7 holes in a line across the width of the fillet and in the adjacent line there are 8 holes staggered as shown in Fig. 1.

NOTE 2 — The number of holes across the width of the fillet depends upon the quality of the cloth to be woven. The number of holes and quality of cotton cloth is given below

for the information and guidance of the buyer and the seller:

<i>Pattern</i>	<i>Quality of Cloth</i>
7/8	Coarse
9/10, 11/12	Medium
16/17	Fine
19/20, 21/22	Superfine

NOTE 3 — Diameter of holes and number of rows of holes per 5 cm along the length of the fillet in respect of various patterns should generally be as follows:

<i>Pattern</i>	<i>Diameter of Hole, mm</i>	<i>Number of Rows/5 cm Along Length of Fillet</i>
7/8	1.2	12
8/9	1.2	16
9/10	0.8	16
11/12	0.8	22
16/17	0.4	26
19/20	0.4	26
21/22	0.4	32

4. MARKING

4.1 Each roll of fillet (*see 5.1*) shall be marked at an appropriate place with the following:

- a) Pattern (*see 3.3*); and
- b) Manufacturer's name, initials or trade-mark.

4.1.1 Fillet may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

5. PACKING

5.1 A length of 150 m of fillet shall be wrapped in the form of a roll. The roll shall then be oiled and wrapped with an inner layer of waterproof packing paper and finally with an outer layer of hessian.

5.1.1 The package shall bear the following information:

- a) Length of the fillet;
- b) Pattern; and
- c) Name, initials or trade-mark of the manufacturer.

6. SAMPLING

6.1 Lot — All the rolls of fillets of the same pattern and manufactured from the same kind of material delivered to a buyer against one despatch note shall constitute a lot.

6.2 The conformity of the lot to the requirements of this standard shall be determined on the basis of the tests carried out on the sample drawn from it.

6.3 Unless otherwise agreed to between the buyer and the seller, the number of rolls to be selected at random shall be according to col 1 and 2 of Table 1.

**TABLE 1 SAMPLE SIZE AND PERMISSIBLE NUMBER OF
NON-CONFORMING ROLLS**

(Clauses 6.3, 6.4 and 6.5)

NUMBER OF ROLLS IN THE LOT	NUMBER OF ROLLS TO BE SELECTED	PERMISSIBLE NUMBER OF NON-CONFORMING ROLLS
(1)	(2)	(3)
Up to 25	5	0
26 „ 100	8	0
101 „ 300	13	0
301 „ 500	20	1
501 „ 1 000	32	1
1 001 and above	50	2

6.4 The rolls selected according to **6.3** shall be tested for width, thickness and pattern.

6.5 Criteria for Conformity — The lot shall be declared as conforming to the requirements of this standard, if the number of rolls found defective in respect of any one or more of the characteristics tested in **6.4** does not exceed the corresponding number given in col 3 of Table 1.

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Dyestuffs	Sizing and finishing materials
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Grading of raw silk	Terminology
Hosiery	Textile floor coverings
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Narrow fabrics	Twines
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